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S/N 10/511588

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	SATO	Examiner:	RAMDHANIE, BOBBY
Serial No.:	10/511588	Group Art Unit:	1797
Filed:	October 4, 2004	Docket No.:	10921.0252USWO
Title:	ANALYTICAL TOOL CARTRIDGE WITH RETRIEVAL MECHANISM, AND SET OF THE CARTRIDGE AND ANALYZER		

CERTIFICATE UNDER 37 CFR 1.6(d):

I hereby certify that this paper is being transmitted by facsimile to the U.S. Patent and Trademark Office on May 3, 2010.

By:

Name: Justine L. Suleski

APPELLANTS' BRIEF ON APPEAL

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

This Brief is presented in support of the Notice of Appeal, filed on February 3, 2010, from the final rejection of claims 1 and 4-18 of the above-identified application, as set forth in the Final Office Action mailed August 3, 2009.

Please charge Deposit Account No. 50-3478 in the amount of \$540 to cover the required fee for filing this Brief.

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I. REAL PARTY IN INTEREST

The Real Party in Interest is ARKRAY, Inc., of Kyoto, Japan.

II. RELATED APPEALS AND INTERFERENCES

The Assignee, the Assignee's legal representatives, and the Appellants are unaware of any other appeals or interferences that will affect, be directly affected by or have a bearing on the Board's decision in this Appeal.

III. STATUS OF CLAIMS

Claims 1 and 4-18 are pending. Claims 1, 4-13, 17 and 18 are rejected and are the subject of this Appeal, claims 2 and 3 are cancelled, and claims 14-16 are objected to as depending from a rejected claim, but otherwise are considered allowable. Appendix VIII attached herewith provides a copy of the pending claims to be reviewed in this Appeal.

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IV. STATUS OF AMENDMENTS

In response to the March 25, 2008 non-final Office Action, an Amendment under 37 C.F.R. §1.111 was filed on August 25, 2008. In response to the November 24, 2008 non-final Office Action, an Amendment under 37 C.F.R. §1.111 was filed on April 24, 2009. No amendment was filed subsequent to the August 3, 2009 final Office Action. A Notice of Appeal was filed on February 3, 21010.

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V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Appellants' invention relates to an analytical tool cartridge in which a plurality of analytical tools are stored. In particular, Appellants' invention relates to a set of the analytical tool cartridge, and an analyzer that is constituted so as to analyze a specific component in a specimen liquid with an analytical tool installed therein (see Appellants' disclosure on page 1, lines 6-11).

Claim 1:

Claim 1 is directed to an analytical tool cartridge (1) that recites, among other features, the following:

a case (4) including a storage space (43) and a retrieval port (46) that communicates the storage space (43) with an external space (see Appellants' disclosure, for example, on page 3, lines 1-4, page 8, lines 22-25, page 9, lines 17-20 and in Figures 1, 2, 5A and 5B);

a plurality of analytical tools stored (3) in the storage space (43) in a stacked state (see Appellants' disclosure, for example, on page 3, lines 5-6, page 10, lines 13-16 and in Figures 2, 5A and 5B);

a retrieval mechanism for retrieving the analytical tools (3) one at a time from the case (4) via the retrieval port (46) (see Appellants' disclosure, for example, on page 3, lines 6-8 and in Figures 1, 2, 5A and 5B);

and an opening/closing mechanism for opening and closing the retrieval port (46) (see Appellants' disclosure, for example, on page 3, lines 9-12 and in Figures 1, 2, 5A and 5B);

wherein the retrieval mechanism and the opening/closing mechanism are integral with each other as a single operating body (5) (see Appellants' disclosure, for example, on page 3, lines 12-14 and in Figures 1, 2, 5A and 5B),

wherein the operating body (5) is formed in a loop encircling the plurality of analytical tools (3) and comprises an engaging projection (51), a closing portion (52) and an opening portion (53), the engaging projection (51) being configured to integrally move the analytical tools (3) when the operating body (5) is moved in a specific direction from a standby state, the closing portion (52) being configured to close up the retrieval port (46) in the standby state, the opening portion (53) being configured to open up the

retrieval port (46) when the operating body (5) is moved in the specific direction from the standby state (see Appellants' disclosure, for example, on page 13, line 21-page 14, line 26 and in Figures 1, 2, 5A and 5B).

Claim 13:

Claim 13 is directed to a set of an analytical tool cartridge (1) and an analyzer (2). The analytical tool cartridge (1) requires, among other features, the following:

a case (4) including a storage space (43) and a retrieval port (46) that communicates the storage space (43) with an external space (see Appellants' disclosure, for example, on page 3, lines 1-4, page 8, lines 22-25, page 9, lines 17-20 and in Figures 1, 2, 5A and 5B);

a plurality of analytical tools (3) stored in the storage space (43) in a stacked state (see Appellants' disclosure, for example, on page 3, lines 5-6, page 10, lines 13-16 and in Figures 2, 5A and 5B);

a retrieval mechanism for retrieving the analytical tools (3) one at a time from the case (4) via the retrieval port (46) (see Appellants' disclosure, for example, on page 3, lines 6-8 and in Figures 1, 2, 5A and 5B);

and an opening/closing mechanism for opening and closing the retrieval port (46) (see Appellants' disclosure, for example, on page 3, lines 9-12 and in Figures 1, 2, 5A and 5B);

wherein the retrieval mechanism and the opening/closing mechanism are integral with each other as a single operating body (5) (see Appellants' disclosure, for example, on page 3, lines 12-14 and in Figures 1, 2, 5A and 5B), and

wherein the operating body (5) is formed in a loop encircling the plurality of analytical tools (3) and comprises an engaging projection (51), a closing portion (52) and an opening portion (53), the engaging projection (51) being configured to integrally move the analytical tools (3) when the operating body (5) is moved in a specific direction from a stand by state, the closing portion (52) being configured to close up the retrieval port (46) in the standby state, the opening portion (53) being configured to open up the retrieval port (46) when the operating body (5) is moved in the specific direction from the

standby state (see Appellants' disclosure, for example, on page 13, line 21-page 14, line 26 and in Figures 1, 2, 5A and 5B),

the analyzer (2) being constituted so as to have installed therein an analytical tool (3) retrieved from the analytical tool cartridge (1), and analyze a specific component in a specimen liquid supplied onto the analytical tool (3) (see Appellants' disclosure, for example, on page 6, lines 4-7, page 16, lines 12-17 and in Figures 7A-7D),

at least one of the analytical tool cartridge (1) and the analyzer (2) being provided with cartridge fixing means for locating and fixing the analytical tool cartridge (1) onto the analyzer (2) (see Appellants' disclosure, for example, on page 6, lines 7-10, page 16, lines 12-17 and in Figures 7A-7D).

Claim 17:

Claim 17 is directed to a set of an analytical tool cartridge (1) and an analyzer (2). The analytical tool cartridge (1) requires, among other feature, the following:

a case (4) including a storage space (43) and a retrieval port (46) that communicates the storage space (43) with an external space (see Appellants' disclosure, for example, on page 3, lines 1-4, page 8, lines 22-25, page 9, lines 17-20 and in Figures 1, 2, 5A and 5B);

a plurality of analytical tools (3) stored in the storage space (43) in a stacked state (see Appellants' disclosure, for example, on page 3, lines 5-6, page 10, lines 13-16 and in Figures 2, 5A and 5B);

a retrieval mechanism for retrieving the analytical tools (3) one at a time from the case (4) via the retrieval port (46) (see Appellants' disclosure, for example, on page 3, lines 6-8 and in Figures 1, 2, 5A and 5B); and

an opening/closing mechanism for opening and closing the retrieval port (46) (see Appellants' disclosure, for example, on page 3, lines 9-12 and in Figures 1, 2, 5A and 5B);

wherein the retrieval mechanism and the opening/closing mechanism are integral with each other as a single operating body (5) (see Appellants' disclosure, for example, on page 3, lines 12-14 and in Figures 1, 2, 5A and 5B),

wherein the operating body (5) is formed in a loop encircling the plurality of analytical tools (3) and comprises an engaging projection (51), a closing portion (52) and an opening portion (53), the engaging projection (51) being configured to integrally move the analytical tools (3) when the operating body (5) is moved in a specific direction from a standby state, the closing portion (52) being configured to close up the retrieval port (46) in the standby state, the opening portion (53) being configured to open up the retrieval port (46) when the operating body (5) is moved in the specific direction from the standby state (see Appellants' disclosure, for example, on page 13, line 21-page 14, line 26 and in Figures 1, 2, 5A and 5B),

the analyzer (2) being constituted so as to install an analytical tool (3) retrieved from the analytical tool cartridge (1), and to analyze a specific component in a specimen liquid supplied onto the analytical tool (3) (see Appellants' disclosure, for example, on page 6, lines 7-10, page 16, lines 12-17 and in Figures 7A-7D),

the analyzer (2) including an inserting portion into which an end portion of the analytical tool is inserted, the analytical tool cartridge (1) and the inserting portion being provided with analytical tool fixing means for fixing the analytical tool (3) in the analyzer (2) (see Appellants' disclosure, for example, on page 7, lines 3-10, page 17, line 17-page 18, line 8 and in Figures 7A-7D).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Whether claims 1, 4-6, 9-13, 17 and 18 are not anticipated by Maisey, et al. (WO No. 02/18940) and more particularly:

1. Whether Figure 2a, item 2 of Maisey et al. discloses the operating body of claims 1, 13 and 17.
2. Whether Figure 3a, item 14 and page 11, lines 34-37 of Maisey et al. discloses that the operating body is formed in a loop encircling the plurality of analytical tools, as recited in claims 1, 13 and 17.

VII. ARGUMENT

A. Claims 1, 4-6, 9-13, 17 and 18 are not anticipated by 35 U.S.C. §102(b) in view of Maisey et al. (WO No. 02/18940).

Claims 1, 4-6, 9-13, 17 and 18 are rejected under 35 U.S.C. §102(b) as being anticipated by Maisey et al. Appellants respectfully request reversal of the rejection for at least the following reasons. For purposes of this appeal only, only independent claims 1, 13 and 17 are argued below and the dependent claims 4-6, 9-12 and 18 are considered to stand or fall together with claims 1 and 17, respectively. Appellants further note that the obviousness rejection to dependent claims 7 and 8 is also not argued separately, as dependent claims 7 and 8 are considered to stand or fall together with claim 1.

The analytical tool cartridge provided in each of claims 1, 13 and 17, requires a case, a retrieval mechanism, and an opening/closing mechanism. Claims 1, 13 and 17 also require that the retrieval mechanism and the opening/closing mechanism are integral with each other as a single operating body. Also, each of claims 1, 13 and 17 requires that an engaging projection (of the operating body) is configured to integrally move the analytical tools when the operating body is moved in a specific direction from a standby state. Further, each of claims 1, 13 and 17 requires, among other features, an operating body that is formed in a loop encircling the plurality of analytical tools.

Maisey et al. fails to disclose or suggest these features of claims 1, 13 and 17.

1. Whether column Figure 2a, item 2 of Maisey et al. discloses the operating body of claims 1, 13 and 17.

The Response to Arguments section of the August 3, 2009 final Office Action relies on Figure 2a, item 2 of Maisey et al. for disclosing the above features of claims 1, 13 and 17 (see the Response to Arguments section on page 3, lines 1-3 of the August 3, 2009 final Office Action).

Maisey et al. is directed to a test device for measuring the concentration of an analyte in a fluid sample (see 1, lines 7-10 of Maisey et al.). Maisey et al. discloses that item 2, shown in Figure 2a, is a housing that surrounds the feed barrel 4 and the magazine 18 (see page 12, lines 1-30 of Maisey et al.).

Each of claims 1, 13, and 17 require an analytical tool cartridge that includes a case, a plurality of analytical tools, a retrieval mechanism and a opening/closing mechanism. The retrieval mechanism and the opening/closing mechanism are integral with each other as a single operating body. Thus, each of claims 1, 13 and 17 require both a case and a distinct operating body.

In contrast, the housing 2 of Maisey et al. includes a space for storing test strips and a feed barrel 4 that communicates the magazine 18 with an external space (see Figure 2a of Maisey et al.). Thus, the housing 2 more closely correlates to the case of claims 1, 13 and 17 and not to the operating body of claims 1, 13 and 17. Accordingly, nowhere does Maisey et al. disclose or suggest a case that is distinct from the housing 2, as required by the operating body of claims 1, 13 and 17 (see Figure 2a of Maisey et al.).

Also, nowhere does Maisey et al. disclose or suggest that a retrieval mechanism and an opening/closing mechanism are integral with each other as the housing 2, as is required for the operating body of claims 1, 13 and 17 (see Figure 2a of Maisey et al.). In contrast, Figure 2a of Maisey et al. discloses that the spring 24 (interpreted on page 2, lines 15-17 of the August 3, 2009 final Office Action as the retrieval mechanism of claims 1, 13 and 17) and the recess 14 with the feed barrel 4 (interpreted on page 2, lines 17-19 of the August 3, 2009 final Office Action as the opening/closing mechanism of claims 1, 13 and 17) are separate from the housing 2 and do not together form the housing 2. Thus, the housing 2 of Maisey et al. cannot be interpreted as the operating body of claims 1, 13 and 17.

Further, nowhere does Maisey et al. disclose or suggest an engaging projection (of the housing 2) is configured to integrally move the analytical tools when the housing 2 is moved in a specific direction from a standby state (see Figure 2a of Maisey et al.). In contrast, no portion of the housing 2 moves the test strip 16, and the housing 2 does not move with respect to the test device (see Figure 2a of Maisey et al.). Thus, the housing 2 of Maisey et al. cannot be interpreted as the operating body of claims 1, 13 and 17.

For at least the foregoing reasons, Figure 2a, item 2 of Maisey et al. does not disclose or suggest the operating body of claims 1, 13 and 17. Appellants respectfully assert that claims 1, 13 and 17 and its dependents are allowable over Maisey et al.

reference. Reversal of the rejection is respectfully requested for at least the foregoing reasons.

2. Whether Figure 3a, item 14 and page 11, lines 34-37 of Maisey et al. discloses that the operating body is formed in a loop encircling the plurality of analytical tools, as recited in claims 1, 13 and 17.

The August 3, 2009 final Office Action also relies on Figure 3a, item 14 and page 11, lines 34-37 of Maisey et al. for disclosing the operating body of claims 1, 13 and 17 (see page 4, lines 9-10 of the August 3, 2009 final Office Action).

Maisey et al. discloses that item 14, shown in Figure 3a, is an opening in the housing 4 through which the test strip can be ejected or removed (see page 13, lines 34-37 of Maisey et al.). However, nowhere does Maisey et al. disclose or suggest that the opening 14 or the housing 4 is formed in a loop encircling the plurality of test strips 16 (see Figure 3a of Maisey et al.). In contrast, Maisey et al. discloses that the housing 4 creates a loop that is away from the plurality of test strips 16 (see Figure 3a of Maisey et al.). Thus, Figure 3a, item 4 and page 11, lines 34-37 of Maisey et al. fails to disclose or suggest an operating body that is formed in a loop encircling the plurality of analytical tools, as required by claims 1, 13 and 14.

Further, it would not be obvious to one skilled in the art to modify Maisey et al. to include an operating body that is formed in a loop encircling the plurality of analytical tools, as recited in claims 1, 13 and 17.

An advantage of the above features of claims 1, 13 and 17 is that the analytical tool cartridge can be made more compact. In contrast, as Maisey et al. discloses that the housing 4 with the opening 14 are separate and away from the plurality of test trips 16 (see Figure 3a of Maisey et al.). Also, nowhere does Maisey et al. suggest that the housing 4 with the opening 14 be formed to encircle the plurality of test strips 15. Thus, one skilled in the art would not contemplate an operating body that is formed in a loop encircling the plurality of analytical tools based on Maisey et al.

For at least the foregoing reasons, Figure 3a, item 14 and page 11, lines 34-37 of Maisey et al. does not disclose or suggest an operating body that is formed in a loop encircling the plurality of analytical tools, as required by claims 1, 13 and 17.

Accordingly, Appellants respectfully assert that claims 1, 13 and 17 and its dependents are allowable over Maisey et al. reference. Reversal of the rejection is respectfully requested for at least the foregoing reasons.

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CONCLUSION

Appellants submit that the rejection is untenable for the reasons set forth above and should be reversed. Please charge any additional fees or credit any overpayment to Deposit Account No. 50-3478.

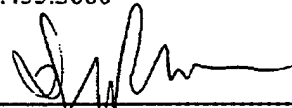
Respectfully submitted,

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VIII. CLAIMS APPENDIX

1. An analytical tool cartridge comprising:
 - a case including a storage space and a retrieval port that communicates the storage space with an external space;
 - a plurality of analytical tools stored in the storage space in a stacked state;
 - a retrieval mechanism for retrieving the analytical tools one at a time from the case via the retrieval port;
 - and an opening/closing mechanism for opening and closing the retrieval port;
 - wherein the retrieval mechanism and the opening/closing mechanism are integral with each other as a single operating body,
 - wherein the operating body is formed in a loop encircling the plurality of analytical tools and comprises an engaging projection, a closing portion and an opening portion, the engaging projection being configured to integrally move the analytical tools when the operating body is moved in a specific direction from a standby state, the closing portion being configured to close up the retrieval port in the standby state, the opening portion being configured to open up the retrieval port when the operating body is moved in the specific direction from the standby state.
- 2-3. (Cancelled)
4. The analytical tool cartridge according to claim 1, wherein the case includes an annular wall portion that defines the storage space and has the retrieval port provided therein,

the operating body being disposed along an outer surface of the annular wall portion, and movable relative to the annular wall portion.

5. The analytical tool cartridge according to claim 1, wherein the analytical tools each include an engaging portion with which the engaging projection engages.
6. The analytical tool cartridge according to claim 1, wherein the operating body includes an operating portion for applying a load to and thus moving the operating body.
7. The analytical tool cartridge according to claim 1, wherein the storage space has a desiccant housed therein.
8. The analytical tool cartridge according to claim 7, wherein the analytical tools are stored in the storage space in a state supported by a platform,
the desiccant being fixed to the platform.
9. The analytical tool cartridge according to claim 1, wherein the analytical tools are stored in the storage space in a state supported by a platform, and are supported in a state biased by the platform.
10. The analytical tool cartridge according to claim 1, wherein the case is provided with a guiding portion for guiding the operating body when the operating body is moved.

11. The analytical tool cartridge according to claim 1, wherein the storage space has therein stacked on top of the analytical tools an information outputting chip from which can be outputted information relating to properties of the analytical tools.
12. The analytical tool cartridge according to claim 11, wherein the information outputting chip outputs information relating to a calibration curve.
13. A set of an analytical tool cartridge and an analyzer, the analytical tool cartridge comprising:
- a case including a storage space and a retrieval port that communicates the storage space with an external space;
 - a plurality of analytical tools stored in the storage space in a stacked state;
 - a retrieval mechanism for retrieving the analytical tools one at a time from the case via the retrieval port;
 - and an opening/closing mechanism for opening and closing the retrieval port;
 - wherein the retrieval mechanism and the opening/closing mechanism are integral with each other as a single operating body, and
 - wherein the operating body is formed in a loop encircling the plurality of analytical tools and comprises an engaging projection, a closing portion and an opening portion, the engaging projection being configured to integrally move the analytical tools when the operating body is moved in a specific direction from a standby state, the closing portion being configured to close up the retrieval port in the standby state, the

opening portion being configured to open up the retrieval port when the operating body is moved in the specific direction from the standby state,

the analyzer being constituted so as to have installed therein an analytical tool retrieved from the analytical tool cartridge, and analyze a specific component in a specimen liquid supplied onto the analytical tool,

at least one of the analytical tool cartridge and the analyzer being provided with cartridge fixing means for locating and fixing the analytical tool cartridge onto the analyzer.

14. The set of an analytical tool cartridge and an analyzer according to claim 13, wherein the cartridge fixing means includes first stopper faces for restricting movement of the analytical tool cartridge in a direction orthogonal to each of a direction of stacking of the analytical tools and a direction of insertion of the analytical tools, and second stopper faces for restricting movement of the analytical tool cartridge in the direction of stacking of the analytical tools.

15. The set of an analytical tool cartridge and an analyzer according to claim 14, wherein the first stopper faces are provided on the analyzer, the second stopper faces being provided on the analytical tool cartridge.

16. The set of an analytical tool cartridge and an analyzer according to claim 15, wherein the cartridge fixing means is constituted from notches provided in the case, and recessed portions provided in the analyzer.

17. A set of an analytical tool cartridge and an analyzer, the analytical tool cartridge comprising:

a case including a storage space and a retrieval port that communicates the storage space with an external space;

a plurality of analytical tools stored in the storage space in a stacked state;

a retrieval mechanism for retrieving the analytical tools one at a time from the case via the retrieval port; and

an opening/closing mechanism for opening and closing the retrieval port;

wherein the retrieval mechanism and the opening/closing mechanism are integral with each other as a single operating body,

wherein the operating body is formed in a loop encircling the plurality of analytical tools and comprises an engaging projection, a closing portion and an opening portion, the engaging projection being configured to integrally move the analytical tools when the operating body is moved in a specific direction from a standby state, the closing portion being configured to close up the retrieval port in the standby state, the opening portion being configured to open up the retrieval port when the operating body is moved in the specific direction from the standby state,

the analyzer being constituted so as to install an analytical tool retrieved from the analytical tool cartridge, and to analyze a specific component in a specimen liquid supplied onto the analytical tool,

the analyzer including an inserting portion into which an end portion of the analytical tool is inserted, the analytical tool cartridge and the inserting portion being provided with analytical tool fixing means for fixing the analytical tool in the analyzer.

18. The set of an analytical tool cartridge and an analyzer according to claim 17, wherein the analytical tool fixing means comprises a projection provided on one of the analytical tool and the inserting portion, and a recess provided in the other thereof for engaging with the projection.

IX. EVIDENCE APPENDIX

Not Applicable.

X. RELATED PROCEEDINGS APPENDIX

None